

Fig. 1. Conceptual Block Diagram of XTCQM Transmitter

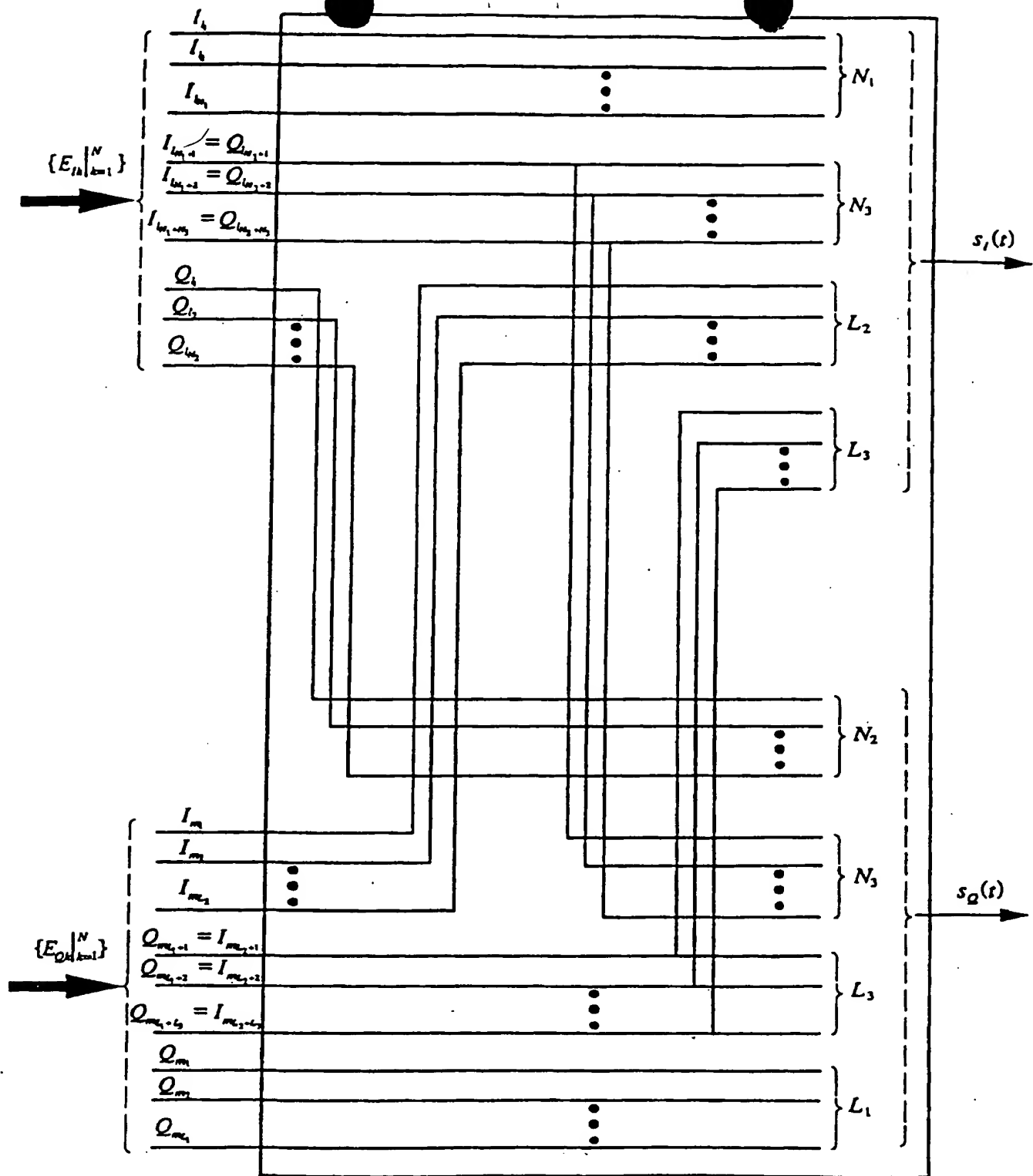


Fig. 2. Crosscorrelation Mapper

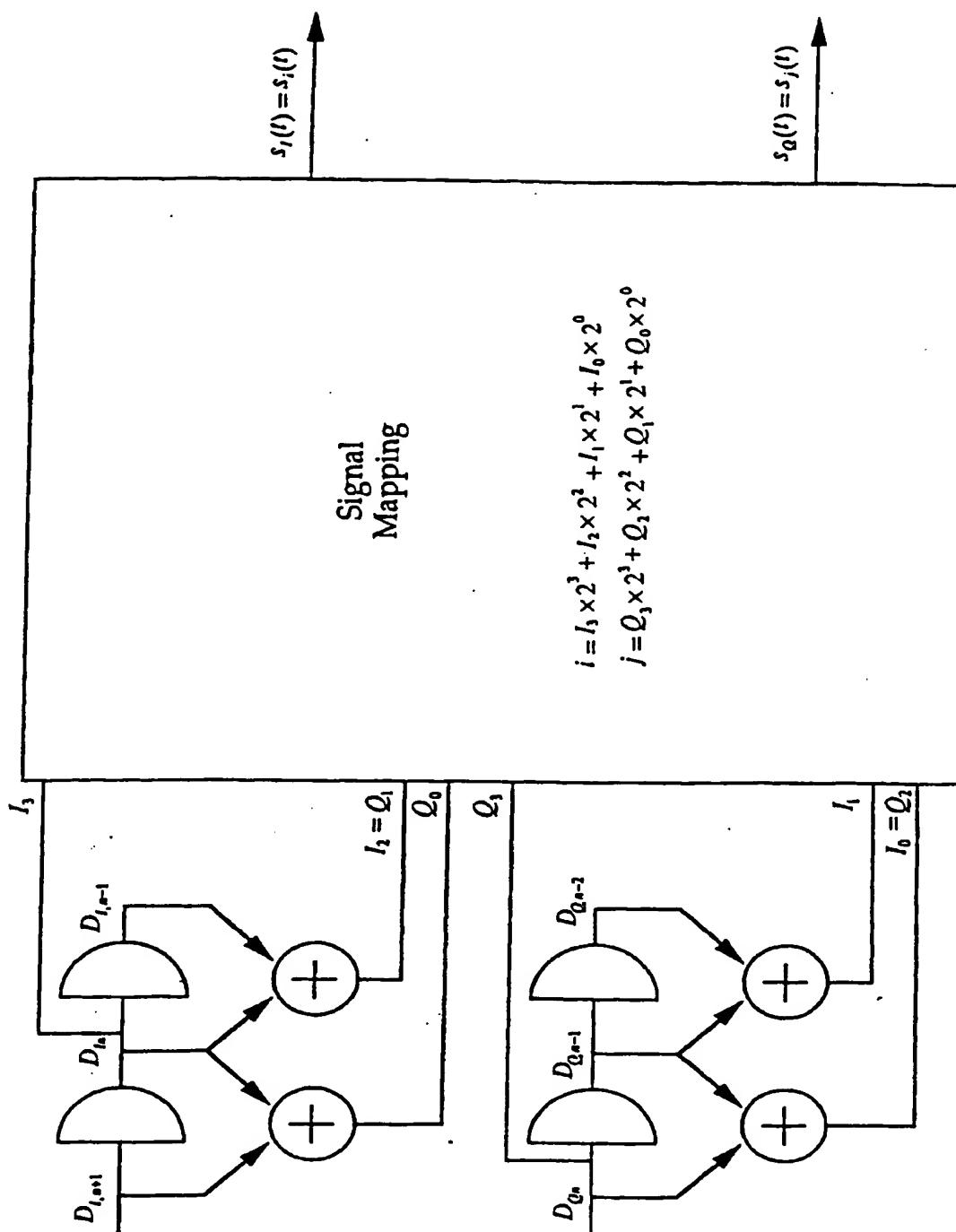


Fig. 3. XPSK (FQPSK) Embodiment of XTCQM Transmitter

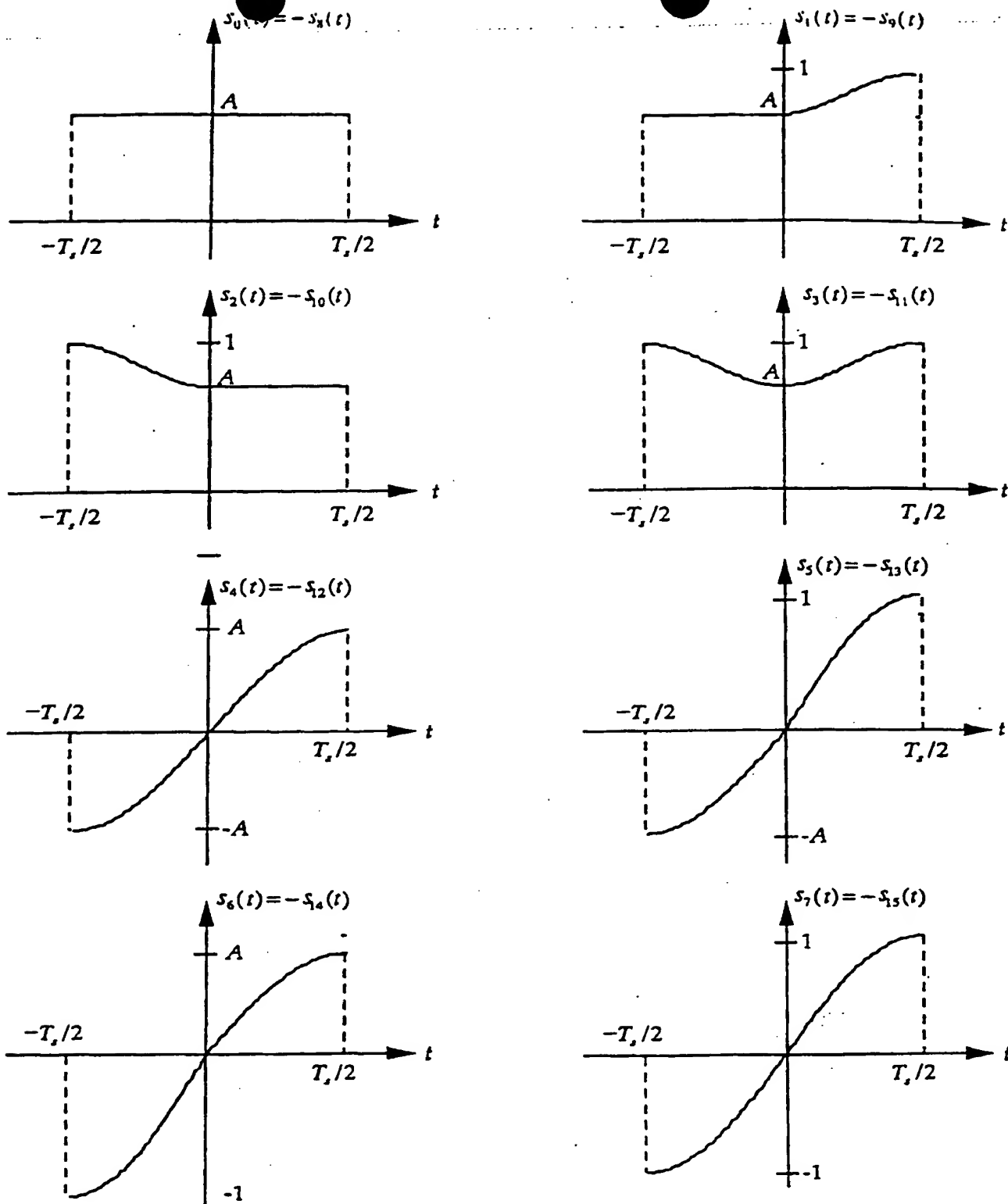


Fig. 4. FQPSK Full Symbol Waveforms

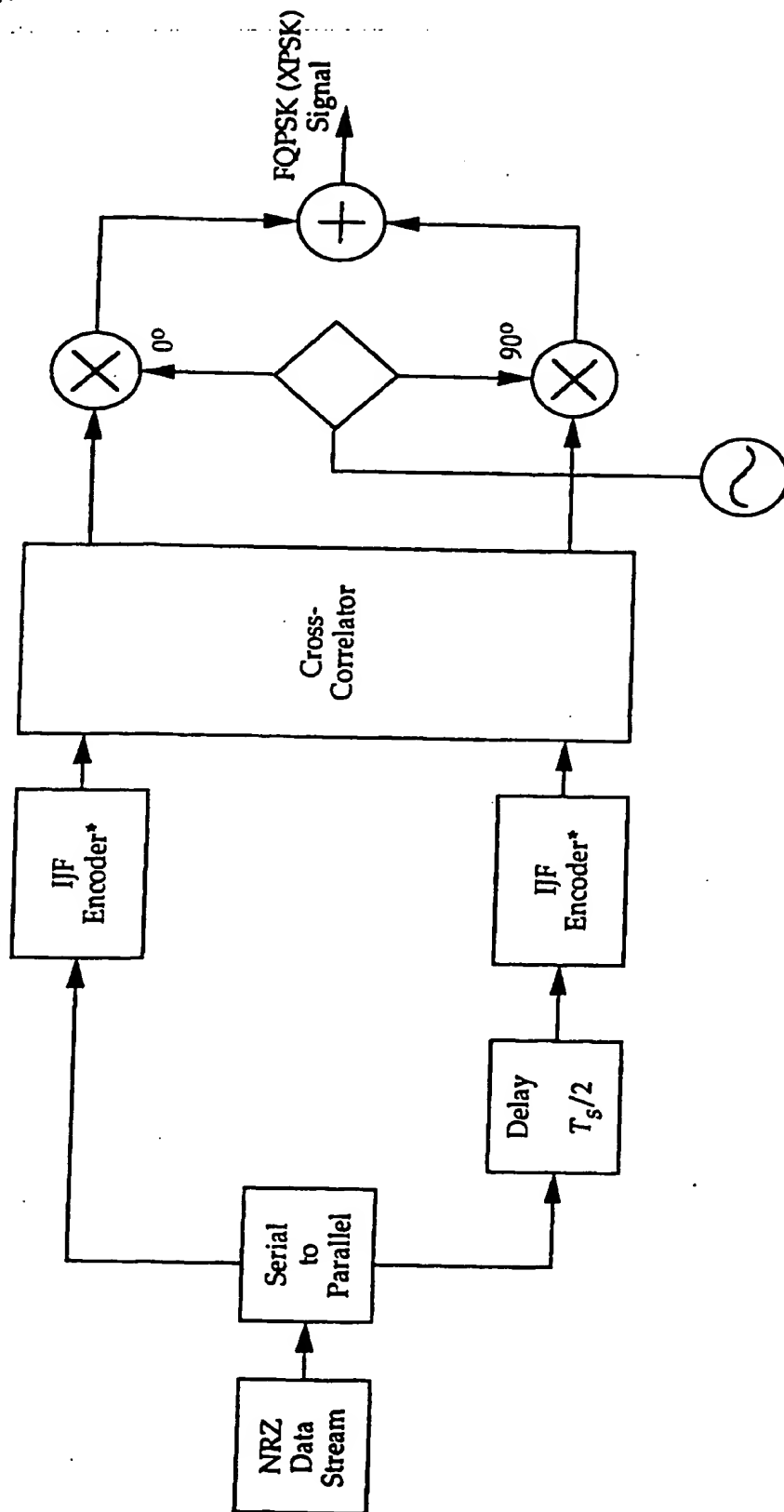


Fig. 5. Conceptual Block Diagram of FQPSK (XPSK)

*Note that what is referred to as an "I/Q Encoder" is in fact a mapping function without any error-correcting capability.

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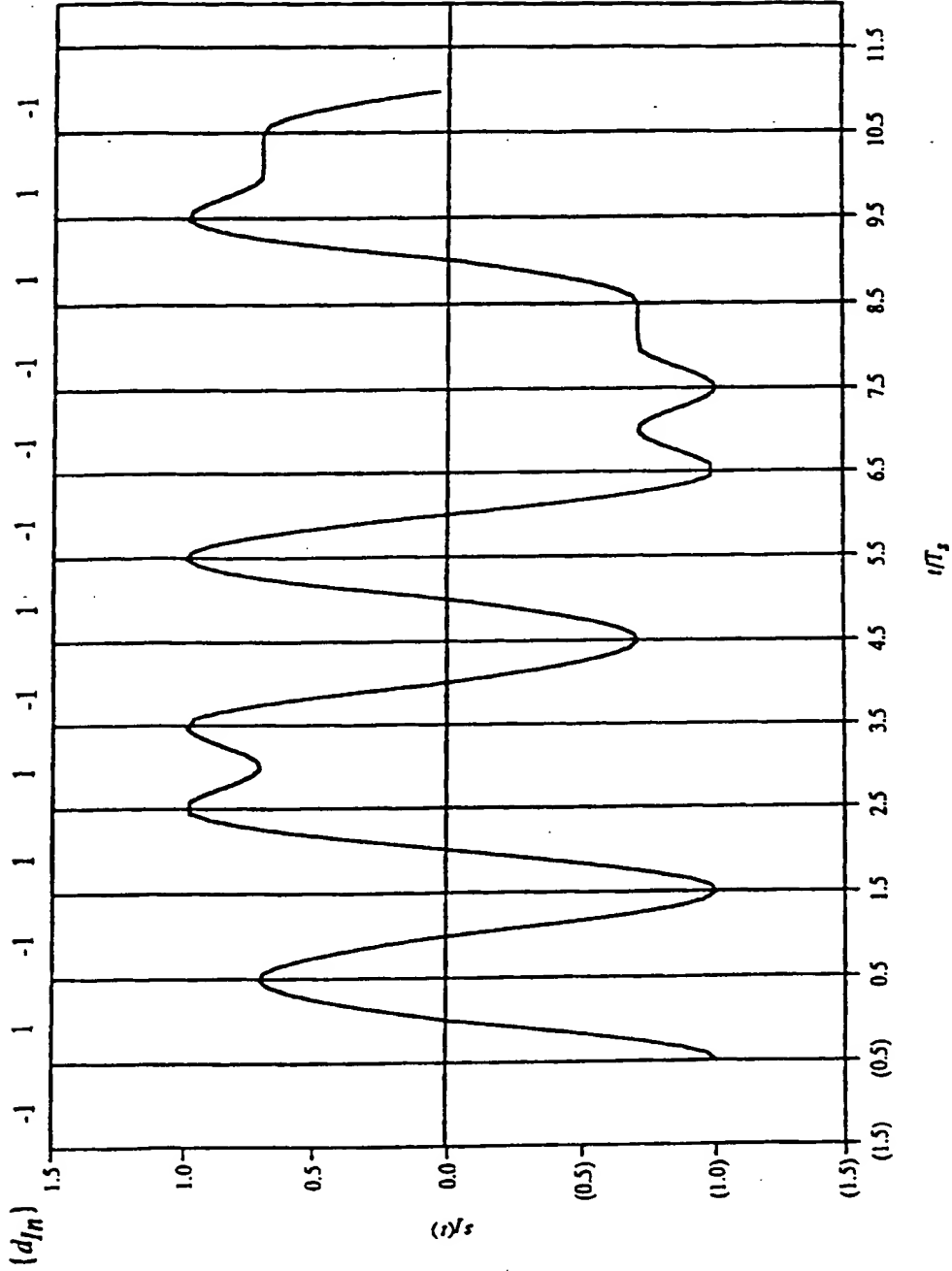


Fig. 6a. InPhase FQPSK (XPSK) Output

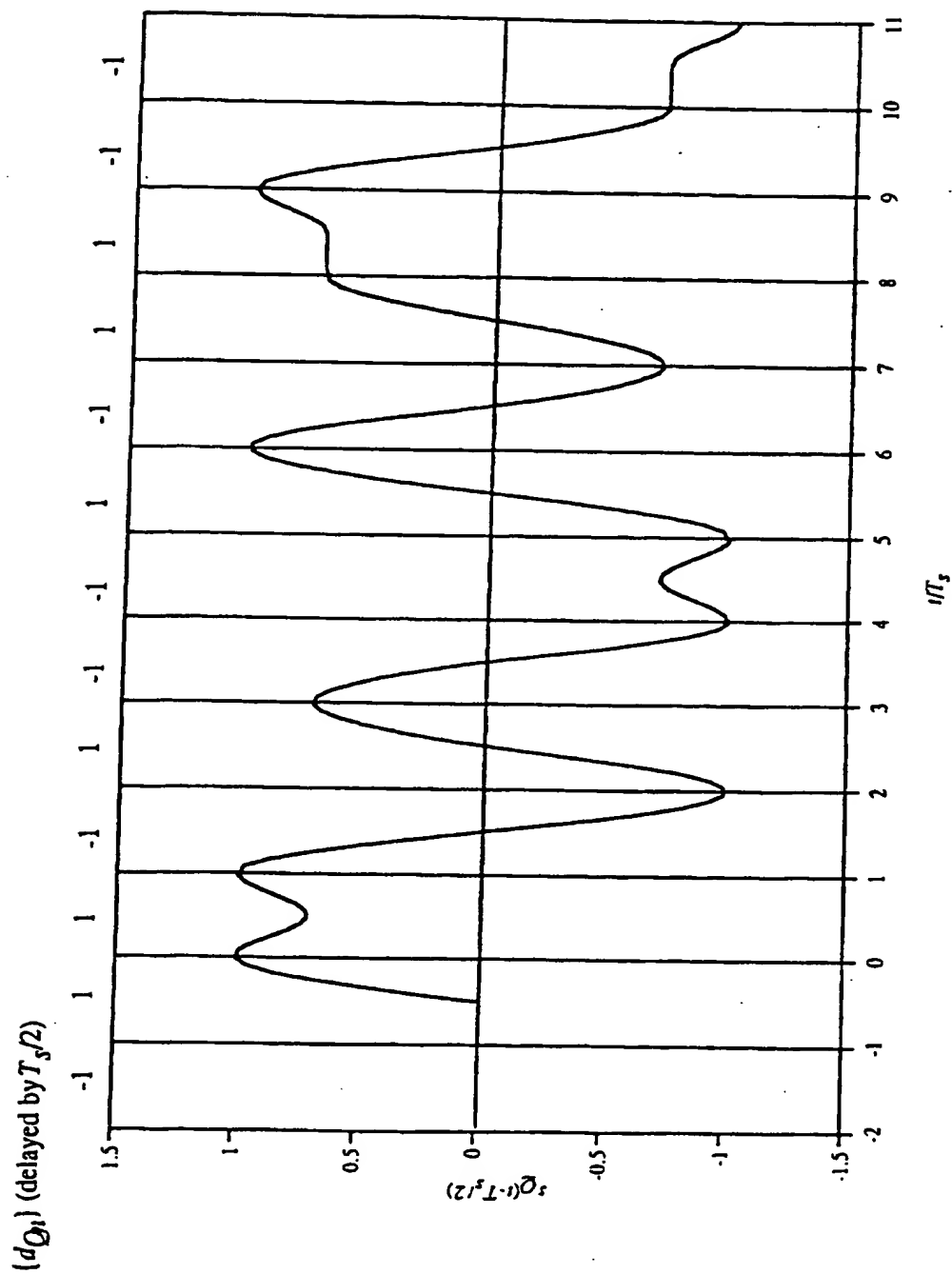


Fig. 6b. Quadrature Phase FQPSK (XPSK) Output

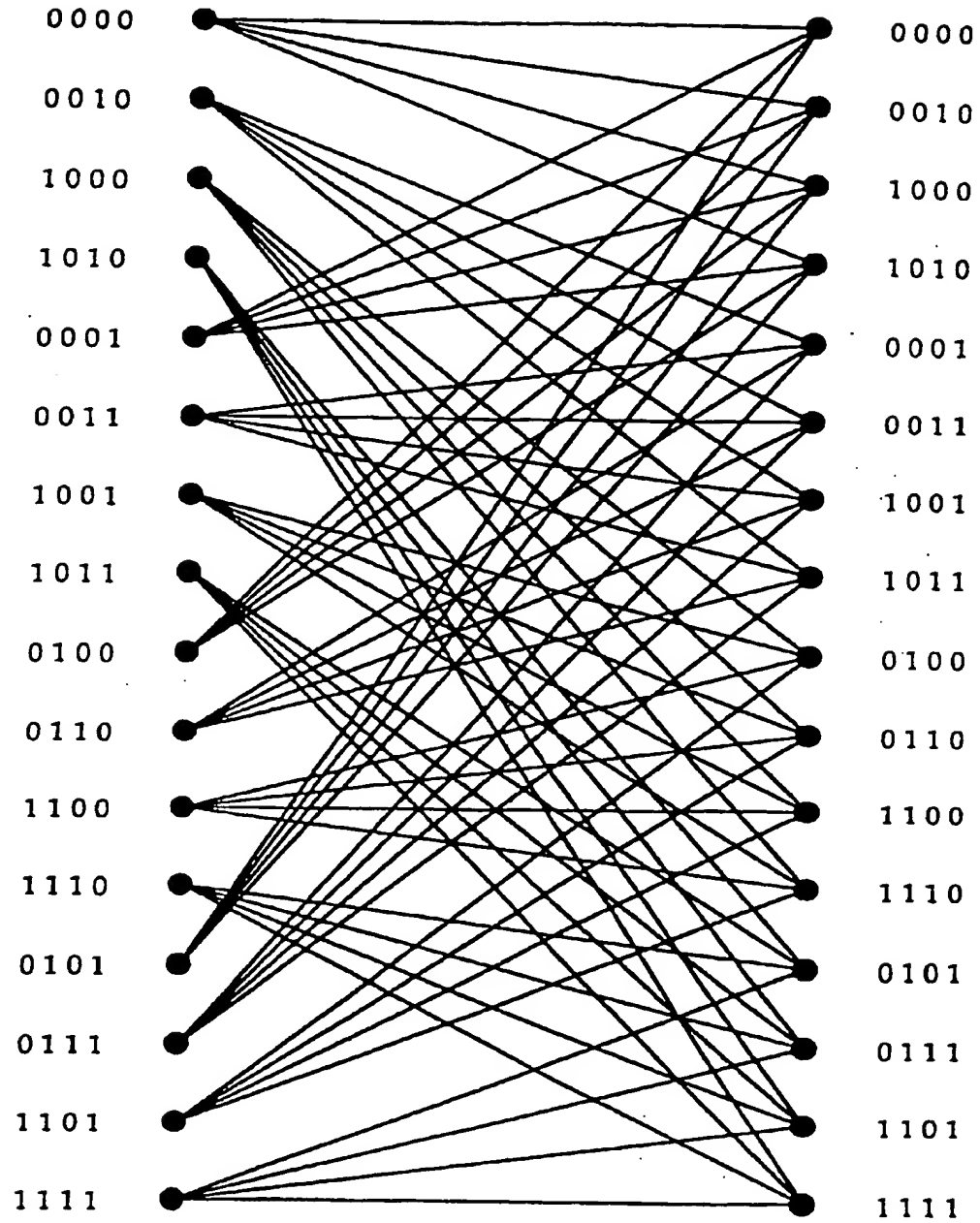
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Fig. 7. 16-State Trellis Diagram for FQPSK

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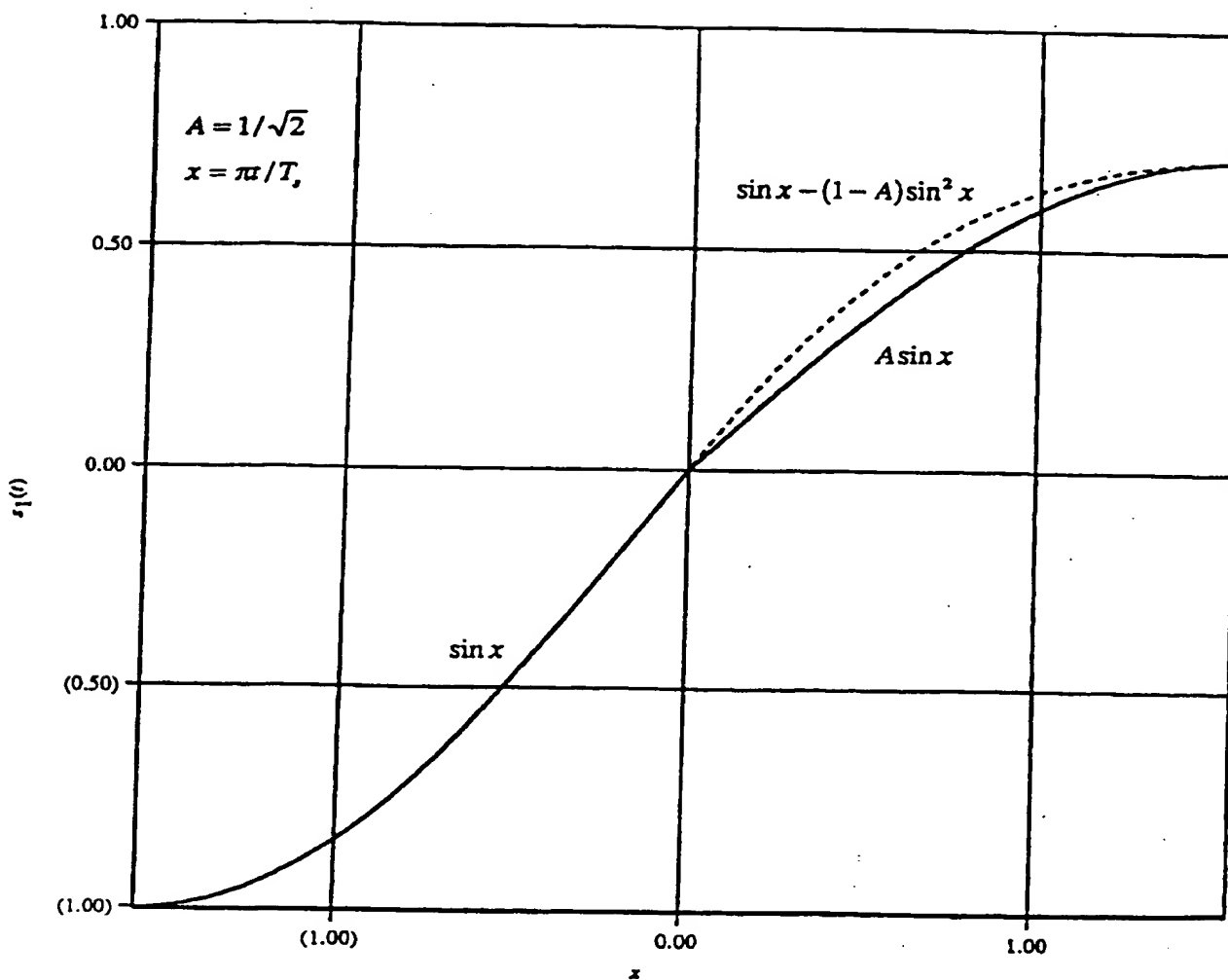


Fig. 8. Original and New FQPSK Pulse Shapes

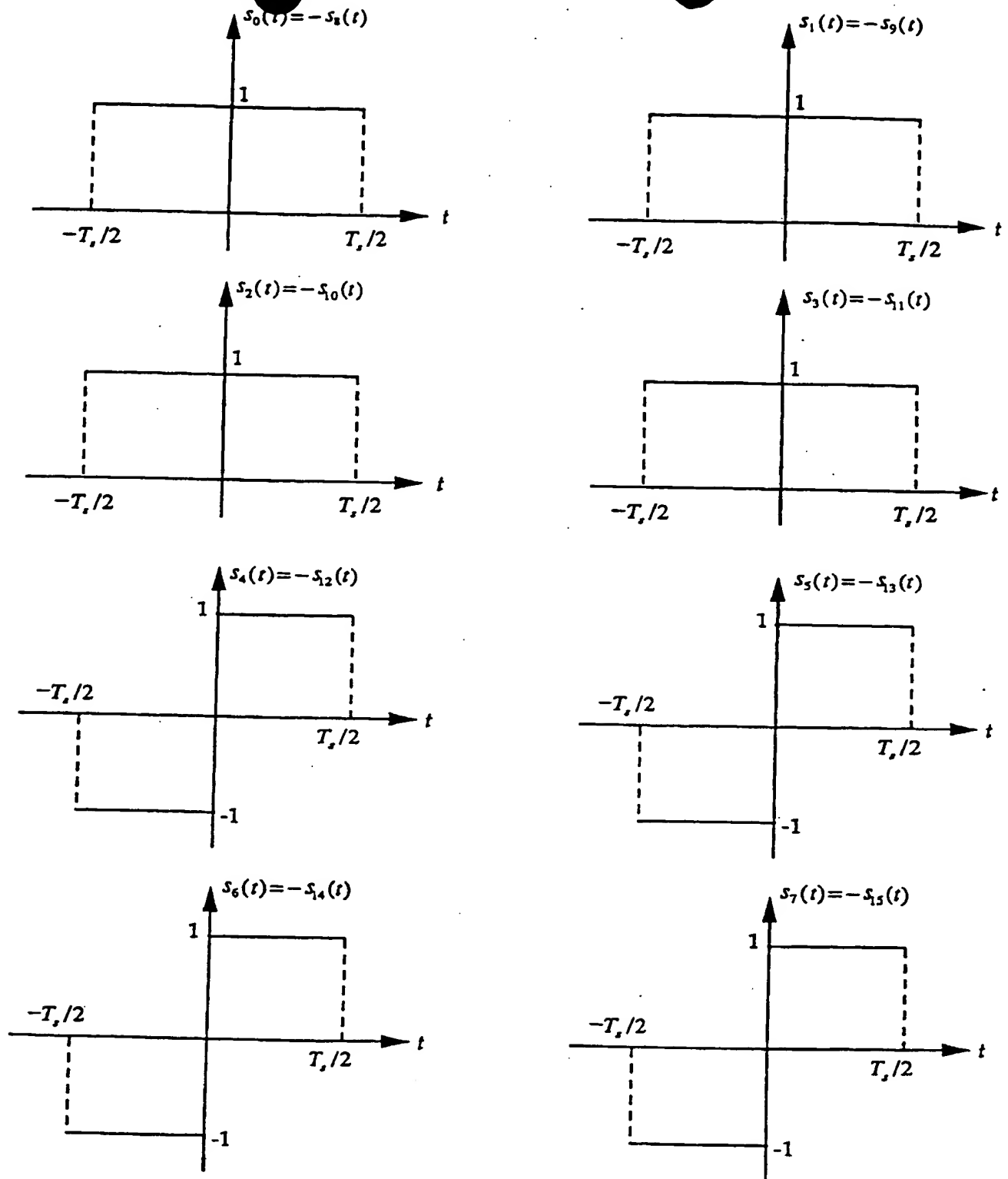


Fig. 9. OQPSK Full Symbol Waveforms

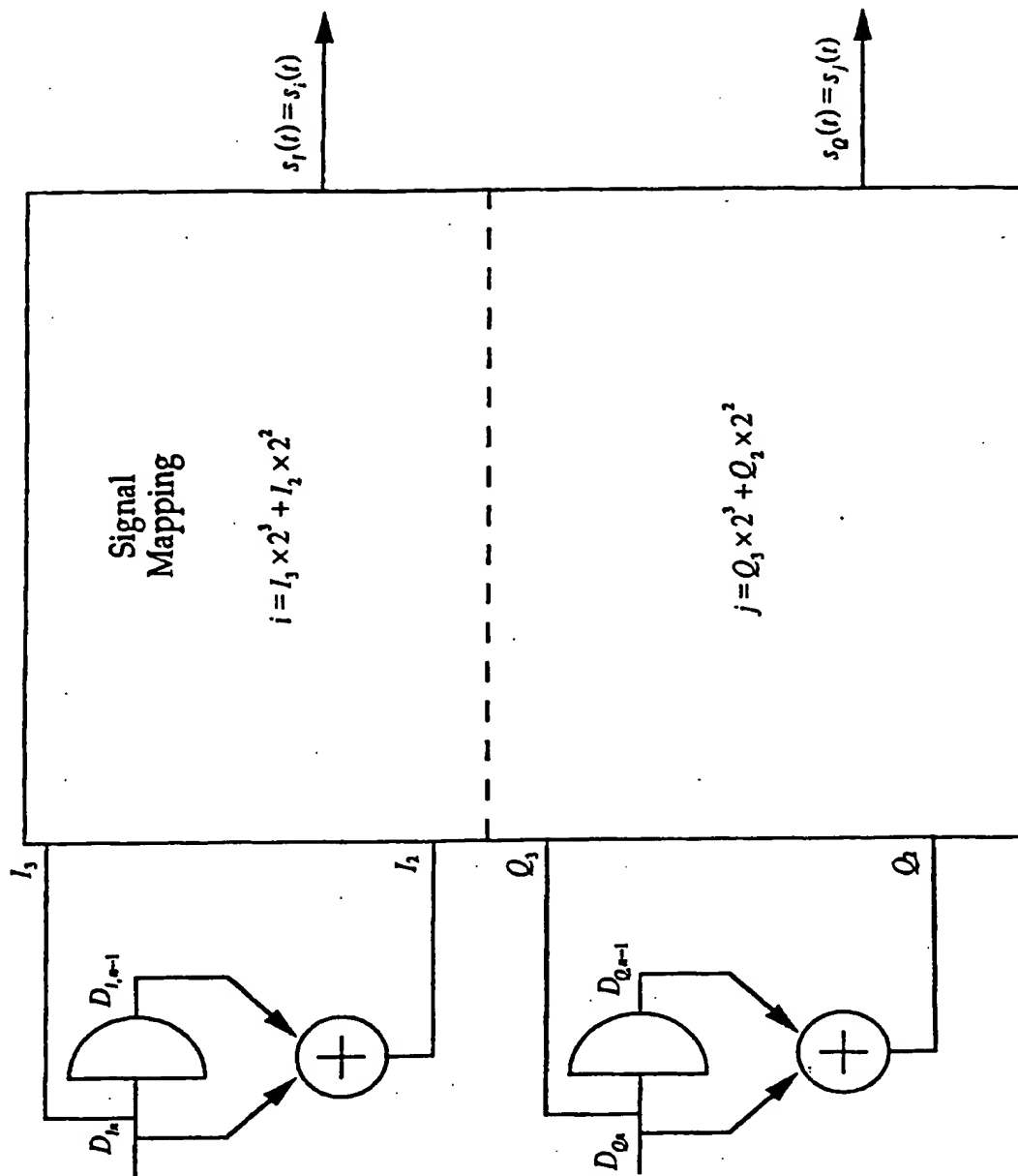


Fig. 10. Trellis Coded OQPSK Embodiment of XTCQM Transmitter

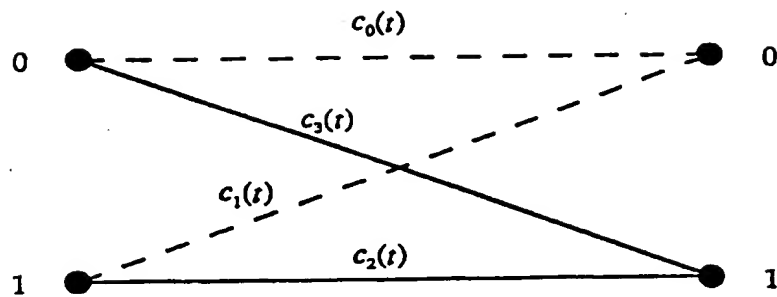


Fig. 11. 2-State Trellis Diagram for OQPSK

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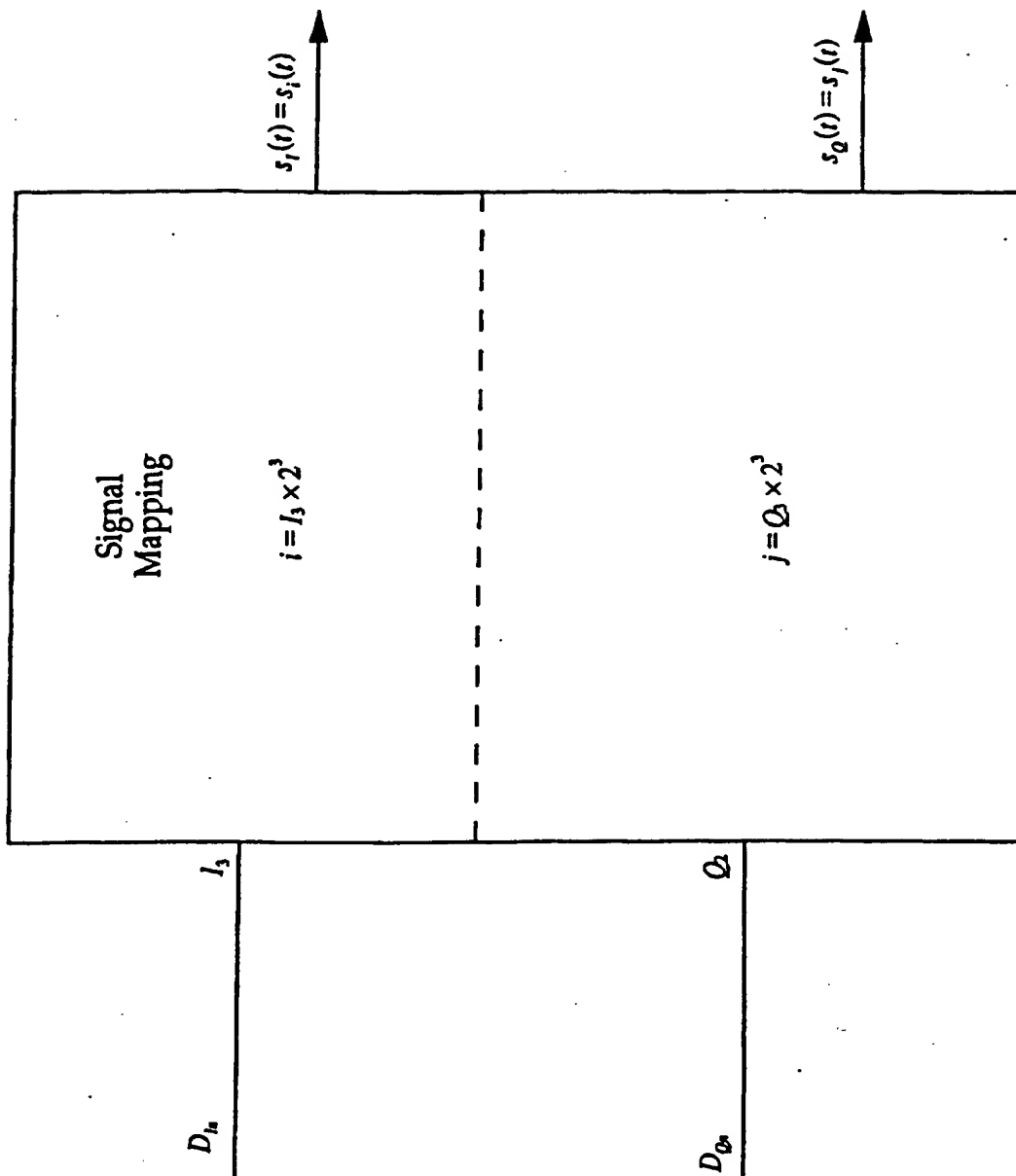


Fig. 12. Uncoded OQPSK Embodiment of XTCQM Transmitter with NRZ Data Formatting

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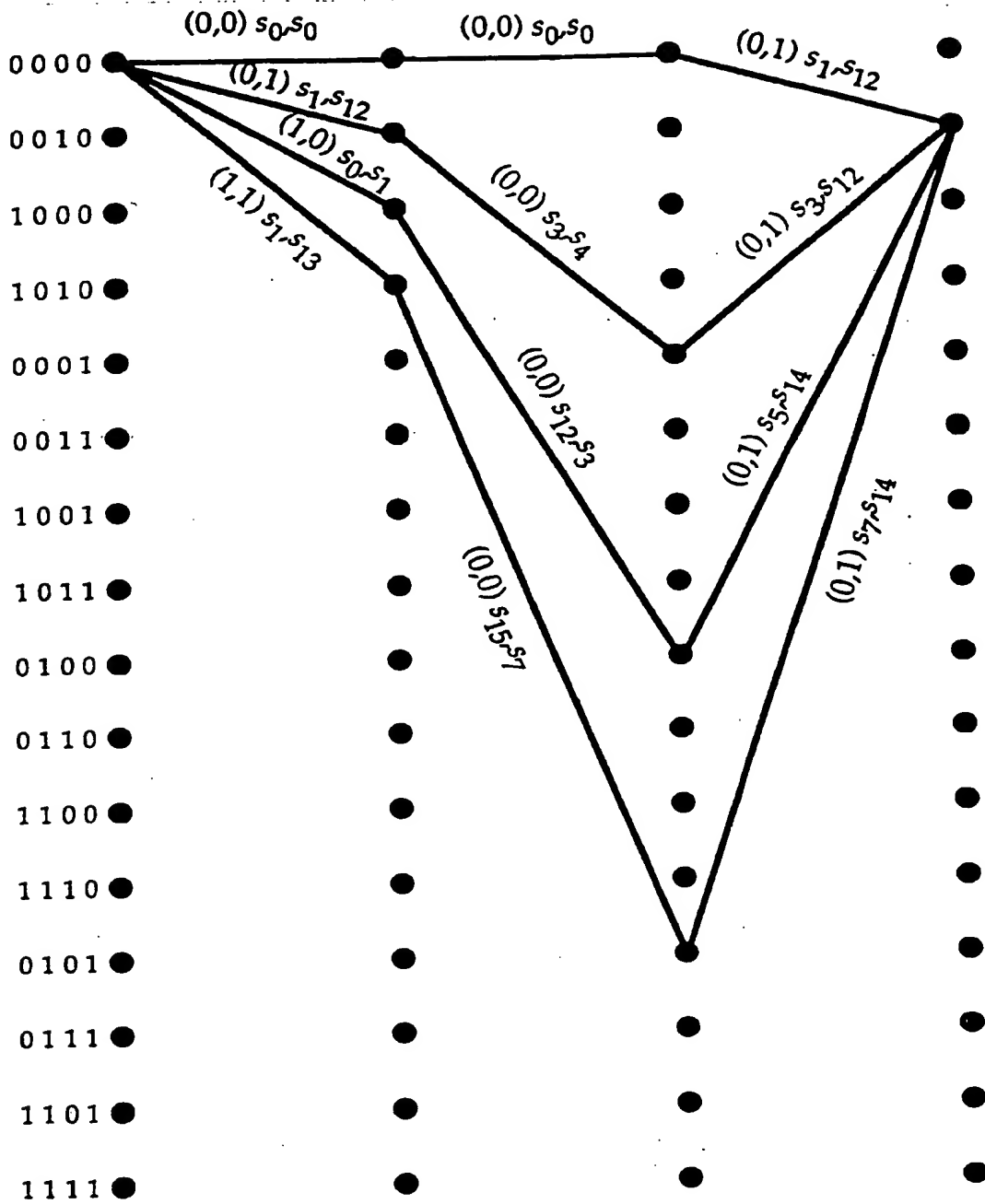


Fig. 13. Paths of Length 3 Branches Starting in State 1 and Ending in State 2

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